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Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D. C. 20554

Federal Communications Commission
Office of the Secretary

ORIGINAL
FILE

In the matter of
Advanced Television Systems
and Their Impact upon the
Existing Television Broadcast
Service

MM Docket No. 87-268

REPLY COMMENTS OF ASSOCIATION FOR
MAXIMUM SERVICE TELEVISION, INC.

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The Association for Maximum Service Television, Inc. ("MSTV") hereby files reply comments to the Notice of Proposed Rule Making, FCC 91-337, released in above-captioned docket on November 8, 1991 ("Notice").^{1/}

MSTV's commitment to assuring that local broadcasters have a viable and effective opportunity to implement HDTV service to the public goes back to the late 1970's and continues today. MSTV's concerns about some, relatively few, aspects of the Notice, reflected in the Joint Broadcaster Comments, filed December 20, 1991, and below, should not obscure its strong endorsement of and appreciation for the leadership the Commission has exercised with respect to HDTV issues generally and in this proceeding specifically. Broadcasting service is the only medium whereby HDTV

^{1/} MSTV is a trade association of approximately 250 local broadcast television stations committed to achieving the highest technical quality feasible for the local broadcast system. In the initial round of comments on the Notice filed December 20, 1991, MSTV participated in the Joint Broadcaster Comments.

technology can be made available on a universal, free, and local basis. It is the only medium, as well, that must rely on spectrum to provide this service, and, therefore, broadcasters must rely on appropriate regulatory action by the Commission. Accordingly, the broadcast industry must focus with special scrutiny on any elements in the Commission's proposed course of action that could unfairly, unnecessarily or unjustifiably impede the implementation of broadcast HDTV service. In short, MSTV's suggestions for the HDTV rule making are intended to further the goals which it shares with the Commission.

I. SPECTRUM ISSUES

A. The Initial Table of Allotments Must Be Site-Specific and Pair NTSC and HDTV Channels.

Virtually none of the commenting parties disagreed with the proposal made in the Joint Broadcaster Comments that the initial HDTV Table of Allotments pair NTSC and HDTV channels and base HDTV initial allotments on stations' NTSC transmitter sites.^{2/} As the Joint Broadcasters emphasized, pairing is essential to ensure that the allotment/assignment

^{2/} Island Broadcasting, an LPTV operator, urged that each market be allotted a "pool" of HDTV channels so as permit the Commission to require that channels occupied by LPTV stations be utilized last. As noted in the Joint Broadcaster Comments, the Commission should not substantially impair the achievement of the Commission's primary goals in this proceeding to protect a secondary service. Joint Broadcaster Comments at 33-35. In any event, other LPTV commenters make clear that disruption to LPTV service can be largely eliminated through far less drastic solutions. See infra, pp 14-16.

such as three years after the selection of a standard -- at which time it will be in a much better position to assess these issues.

MSTV also urges the Commission to take appropriate steps regarding other issues raised by the Notice and the commenters: (1) The Commission should be prepared to carry through on the clearly and consistently stated secondary status of LPTV and translator stations wherever they must be displaced to make HDTV channels available to broadcasters. MSTV believes translators should be given priority over LPTV stations in this displacement and relocation process. (2) Broadcasters will need additional auxiliary spectrum given that simulcasting requirements will nearly double broadcast auxiliary needs. (3) The transition to HDTV will require a great deal of UHF spectrum to accommodate all existing broadcasters, especially in the largest and most congested markets. It is wholly unrealistic to expect UHF spectrum to be available for land mobile use on top of these HDTV demands. The Commission should consequently terminate Gen. Docket No. 85-172, the seven-year old proposal to reallocate UHF spectrum in the top eight markets to land mobile users. MSTV also urges the Commission to consider reallocating to television broadcasters UHF channels in selected markets that are underutilized by land mobile.

SUMMARY

There is strong consensus support for the proposal made in the Joint Broadcaster comments that the initial HDTV Table of Allotments pair NTSC and HDTV channels and base HDTV initial allotments on stations' NTSC transmitter sites. The Commission should adopt this spectrum-efficient and cost-effective means of allotting and assigning HDTV channels. No other strategy would so effectively enhance the Commission's ability to achieve these and other public policy goals. The Commission should also adopt appropriate protection criteria in using Channels 3 and 4 given the vulnerability of cable equipment and VCR's to off-air co-channel interference.

MSTV here provides further support for the position that it would be unwise for the Commission to adopt rigid use-or-lose construction and conversion deadlines. There is simply enormous uncertainty at this point regarding many factors, such as consumer acceptance of broadcaster HDTV and its likely costs and investment returns, that are critical in determining the time periods in which broadcasters can reasonably be required to construct and begin operating their HDTV channels. While it may be acceptable for the Commission to set a deadline for existing licensees to file HDTV applications (provided the deadline is subject to change due to general conditions or waiver due to specific circumstances), it would be arbitrary and counterproductive to announce ultimate construction and conversion deadlines at this time when so little is known about these factors. Instead, the Commission should select a date --

process proceeds in a timely fashion; site-specific allotments are essential to achieve maximum spectrum efficiency and cost-effective implementation.^{3/} The point should be underscored: pairing and site-specific allotments will greatly enhance the Commission's and the broadcast industry's goals of achieving high quality HDTV service, HDTV coverage comparable to NTSC coverage, HDTV allotments for all current licensees and the other objectives described in the Joint Broadcaster Comments.

Nor was there any degree of support for either of the alternative plans proposed in the Notice.^{4/} The Joint

^{3/} Great American, while concurring in the basic theories of channel-pairing and site-specific allotments, proposes to permit stations who make certain threshold showings to obtain HDTV channel allotments (and thus assignments) based on alternative transmitter assignments. Comments of Great American at 3-4. The Great American proposal, which, inter alia, requires stations to continue to provide service throughout their existing communities of license, is unobjectionable in principle but carries the potential burden of delaying the allotment-assignment process. MSTV believes that in virtually all markets, including the Tampa-St. Petersburg market of particular concern to Great American, there will be an ample number of alternative HDTV channels available for stations desiring them, and that the interference-protection parameters of the new service will give stations substantial flexibility in relocating their HDTV channels.

^{4/} No support was expressed for the first option, random assignment of a "pool" of channels within each community. This option suffered primarily from its failure to state how the Commission is to create channels for inclusion in a "pool" for each community, especially in the event the community is allotted only a single channel. To the extent this option contemplated random allotment of channels to communities, it would lead to gross spectrum inefficiencies. To the extent it simply assumed the existence of such pools, it begged the question of how to obtain the optimal pools. And, as the Joint Broadcasters observed at page 6 of their comments,

(continued...)

Broadcaster proposal represents the clear and unequivocal consensus of the broadcast industry and, without significant opposition from any other quarter, it should be adopted.

B. The Commission Must Take Care in Utilizing Channels 3 and 4.

Channels 3 and 4 have been selected by cable operators and VCR manufacturers as the base frequencies utilized to display cable programming and videocassettes on modern receivers because Channels 3 and 4 have been nowhere allotted to the same community. Because of the vulnerability of cable equipment and VCR's to off-air co-channel interference, great caution must be exercised in utilizing these channels for HDTV.

Over-the-air HDTV signals will likely be far weaker than NTSC channels, a fact which reduces to a significant degree the area over which interference to cable and VCR's is likely to occur. Precisely how much weaker these signals will be and precisely how large an area must be protected from HDTV

^{4/}(...continued)

because it was not premised on existing sites, the vast distances between stations licensed to the same community or market render a non-site specific plan inherently far less efficient than the Joint Broadcaster channel-pairing proposal.

The only party expressing support for the "first-come, first-served" option was the Consumer Electronics Group of the Electronic Industries Association ("EIA/CEG"). EIA/CEG's support for this proposal was unaccompanied by any analysis other than a broad expression of belief that it would prompt broadcasters to introduce HDTV more quickly, which would benefit EIA/CEG's receiver manufacturer members. Comments of EIA/CEG at 7-8.

usage on either Channel 3 or 4 must await the completion of testing. But it seems prudent even at this stage to incorporate some level of protection for Channels 3 and 4 into the channel allotment process.

C. A List of Eligibles and A Freeze of Some Licensing Parameters is Necessary to Develop a Table of Allotments.

Virtually all of the commenting parties supported the Commission's proposal to limit eligibility to licensees, permittees and applicants whose applications have been accepted for filing as of October 24, 1991, the adoption date of the Notice. See Notice at ¶ 8. MSTV believes that the next step in the process is for the Commission to adopt this approach and promptly issue a list of all eligibles and their respective transmitter locations. This basic information is essential to the development of a table of allotments. In addition, the Commission should also institute a temporary "freeze", for planning purposes only, on all modifications of existing licensees' technical and engineering parameters that may affect the determination of both existing NTSC and the proposed HDTV coverage and interference areas. This would mean that while licensees could seek to make changes in their existing NTSC facilities that would affect their coverage and interference areas, the enormously complex HDTV allotment process would proceed on the basis of existing facilities as of October 24, 1991. In this way the ATV Advisory Committee and the Commission can design HDTV allotments with a first

priority of achieving HDTV coverage comparable to NTSC coverage, taking into account existing interference.

II. LICENSING ISSUES

A. Rigid, Pre-Set Use-Or-Lose Periods And Conversion Deadlines Could Be Counterproductive.

The Joint Broadcasters urged the Commission to postpone setting rigid HDTV "use or lose" deadlines for NTSC stations until the Commission has had an opportunity to more fully assess the magnitude and direction of the many market forces beyond broadcasters' control that are pertinent to the HDTV construction decision. Joint Broadcaster Comments at 15-24. In particular, while three years appears to be an appropriate target period to require the filing of applications for HDTV channels assigned to existing broadcasters (provided the deadline is subject to change due to general conditions or waiver due to specific circumstances), the Joint Broadcasters pointed out the implausibility of imposing the same two-year construction deadline applicable to the fully mature NTSC market to the nascent HDTV market about which little is known, including the timing of availability of transmitting and receiving equipment, the penetration rates of receivers and the availability of affordable financing.

For many of the same reasons, the Joint Broadcasters urged caution in setting a rigid date by which broadcast stations must convert to HDTV. Joint Broadcaster Comments at

24-26. As the Joint Broadcasters observed, picking the wrong date would be counter-productive, potentially deterring investment that would otherwise occur, thereby undercutting the Commission's goals in this proceeding and delaying, if not denying, the benefits of advanced television technology to the public. As to both deadlines, the Joint Broadcasters suggested that the Commission establish a date, e.g., three years after selection of a standard, at which time it will receive and assess expert analysis and recommendations from the ATV Advisory Committee or some comparable organ as to what, if any, construction and conversion periods it should impose.

Very few other parties commented on these issues, with at least one important participant expressly deferring to the experience and expertise of the broadcasting industry as to the appropriateness of specific application and construction deadlines. See, e.g., Comments of North American Phillips at 8. Those that did address these issues came to essentially the same position as the Joint Broadcasters. Thus HDTV proponent Zenith, while emphasizing the importance of a prompt broadcast HDTV rollout, and expressing strong support for a mandatory conversion date, urged the Commission to wait at least five years before setting such a date. Comments of Zenith at 8-9. North American Phillips also urged deferral of this decision, noting the riskiness and uncertainty of the HDTV market and the potential harm to the still-important NTSC

market of a premature conversion date. Comments of North American Phillips at 14.

EIA/CEG, while discussing general approaches to the conversion process, stated that it was far too soon for the FCC to set a specific conversion date at this point given the many unknown variables. Comments of EIA/CEG at 9-12. EIA/CEG expressed tentative support for the proposed 3/2 year application/ construction period as a means of expediting the introduction of HDTV. But it "reserve[d] judgment on the specific details of these proposals," recognizing "[t]here may be good reasons why the three or two year periods are not entirely appropriate as general rules." Comments of EIA/CEG at 5-7.

The uncertainty and caution evident from the receiver manufacturer comments underscore the awareness that HDTV is both an extremely risky investment for broadcasters and that broadcast HDTV's success will be dependent upon (and provide significant benefits for) other industry sectors over which broadcasting have little or no control.

The uncertainty surrounding the time when broadcast HDTV construction is to be required stems in significant part from the paucity of any adequate forecasting data. MSTV is aware of no publicly available efforts of any kind, for example, from the ATV Advisory Committee or elsewhere, to forecast broadcast HDTV revenues. We do know that total broadcast HDTV revenue will be a function of the value of

broadcast HDTV audiences to advertisers (revenue per household) and the scope of that audience (receiver penetration). We know of no estimates at all of the former. Given the current volatility of NTSC broadcast revenues^{5/} and the uncertainty as to the extent to which HDTV revenues will be "new" revenue rather than "shifted" NTSC revenues, it is obvious why such estimates would, in any event, inevitably be highly speculative.

There are a number of estimates of receiver penetration.^{6/} These penetration "forecasts" are, however, more accurately described as "scenarios" or even just guesses,^{7/} and have been intensively criticized. See, e.g.,

^{5/} FCC Office of Plans and Policy, "Broadcast Television in a Multichannel Marketplace," 6 FCC Rcd 3996, 4022-32 (1991).

^{6/} See Fourth Interim Report of Working Party 5 on Economic Factors and Market Penetration, Planning Subcommittee of the Advisory Committee on Advanced Television (March 4, 1991); Larry F. Darby, "Economic Potential of Advanced Television Products", Washington, DC, National Telecommunications and Information Administration (April 1988); Robert R. Nathan and Associates, "Television Manufacturing in the United States: Economic Contributions--Past, Present, and Future", Washington, DC, Electronic Industries Association (November 1988); David Russell, "High Definition Television (HDTV): Economic Analysis of Impact", American Electronics Association (November 1988).

^{7/} A review of these studies indicates that none are based to any degree upon consumer-based research. All are also lacking in expression of statistical "confidence intervals" or the basis for deriving them. It might be more accurate to characterize the penetration studies to date not as forecasts but as analyses of various possible "scenarios" that might evolve if only certain key underlying circumstances and events materialize. See C.W.J. Granger, *Forecasting in Business and Economics*, Academic Press, Inc., 1989, at 224.

"The Scope of the High-Definition Television Market and Implications for Competitiveness," Congressional Budget Office Staff Working Paper, July 1989; "The Big Picture: HDTV & High Resolution Systems", Office of Technology Assessment, June, 1990.^{8/}

Even if these estimates are to be taken at face value, the postulated variations in this one variable are dramatic and demonstrate the impossibility of trying at this juncture to rationally predict a reasonable Commission-required deadline for broadcast investment in HDTV. Any attempt to forecast broadcast HDTV revenue today on the basis of existing receiver penetration estimates would require relatively uninformed assumptions about the value of HDTV

^{8/} Because of the lack of any hard consumer-based research, these studies are all essentially extrapolations upon the penetration rates of previously introduced consumer electronics equipment. As the Joint Broadcasters noted at page 19 of their comments, the experience with color television, in many ways a close analogy, points toward a substantial (e.g., ten-year) period to reach the critical 1% penetration figure. Some would argue that the color television experience is unduly pessimistic because at the time there was essentially only one distribution medium, broadcasting, which was under no competitive pressure to upgrade its facilities, a far cry from the intense intermodal competition of today. As argued below, however, it should also be apparent that a great percentage of the "total return" on broadcast HDTV will accrue not to broadcasters but to receiver manufacturers and programmers. At the time color was introduced, there was at least one company, RCA, which was integrated into broadcasting, receiver manufacturing and programming and which, accordingly, had great incentive to and did drive color set penetration. While some broadcasters, particularly the networks, are substantial programmers, no broadcaster today is integrated with any receiver manufacturer (probably because virtually all of them are foreign-owned and ineligible to hold broadcast licenses).

audiences to advertisers, a key determinant of broadcast HDTV revenue. Moreover, even if an appropriate surrogate measure of this value could be estimated by extrapolating from the value of NTSC audiences to advertisers,^{9/} there remains significant uncertainty about the tradeoffs in revenue from NTSC to HDTV over time and the resulting impact on total broadcast television station revenue.^{10/}

The cost side is equally speculative. The only cost estimates to date are the preliminary efforts of CBS and PBS. High Definition Television Transition Scenarios for TV Stations - A CBS Work in Progress, February 20, 1991; High Definition Television, PBS Engineering, October, 1990. While both of these studies provide some useful analysis of the likely capital costs to stations of constructing HDTV transmission facilities under varying conditions, neither purports to be anything close to definitive. Indeed, they do

^{9/} Revenues now earned by NTSC stations could be viewed in terms of the number of households served, arriving at a national "revenue-per-household" estimate, but this would hardly prove adequate to forecast HDTV revenues for business planning purposes.

^{10/} Total station revenues from broadcast television operations would consist of combined revenue from NTSC and HDTV. As the HDTV service grows, and HDTV receiver penetration increases, one might expect NTSC revenue to decline due to a shift in viewership from NTSC to HDTV. However, evidence supporting this assumption, such as viewer preference studies, is not available, and the reasonableness of this assumption would seem to depend on many other variables such as the programming offered by stations in both the NTSC and HDTV formats, and the behavior of broadcast competitors including cable, TVRO, and possibly DBS.

not estimate several other significant cost factors, including additional operating and programming costs. Even as to the costs they do estimate, the predictions vary substantially.

The cost of constructing HDTV broadcast facilities will vary from market to market and station to station within a given market. The cost variability is attributable to differences in several factors including the pace or timing of construction; the extent to which existing facilities can be converted fully or partially to HDTV; the ability to utilize existing transmitter sites; the degree of local origination capability required for operation; the extent to which existing facilities can be modified or must be completely replaced; the size or coverage of the station; and a variety of other unique factors associated with the operation of each individual station. The PBS study estimates a range of potential facilities-related costs of \$12.2 million per station, from \$1.6 million to \$13.8 million, a variance of 854 percent.^{11/}

The CBS Study does provide the useful insight that HDTV implementation is not likely to be uniform nationwide but rather will probably begin with larger markets and reach smaller markets later, suggesting that economies of scale may be achieved and equipment costs may fall. This likelihood alone is enough to make it wholly irrational to adopt an

^{11/} High Definition Television, PBS Engineering, October 1990, at pp. 3-13.

across-the-board, nationwide application/construction deadline. It is also a fact which has not been taken into account in any of the receiver penetration scenarios to date and which could well result in a slower penetration than those studies indicate.

The point here is not whether broadcast HDTV will be a success or, if it is, how big a success it will be. The point is simply that at this time there is enormous uncertainty as to both the likely costs and likely returns of broadcasters' HDTV investment, the fundamental factors broadcasters must assess in determining the magnitude and timing of their investment. If the Commission forces broadcasters to make that investment decision prematurely, the decision will much more likely result in one of two adverse outcomes: stations will either forego investment in HDTV or they will construct their HDTV stations prematurely and jeopardize both their ability to operate profitably their combined HDTV and NTSC facilities over time.

The Commission must also recognize that in addition to the benefits to be enjoyed by the public, the major, if not the sole, private beneficiaries of the implementation of broadcast HDTV will be the transmission and receiver equipment manufacturers and programmers. By driving set penetration, broadcast HDTV will bring substantial gains to these two sectors. For the same reason, broadcasters will also be

providing potential value to competitive distributors such as cable, VCRs and DBS.

These complementary or competitive industries will not be subjected to similar administrative technological force-feeding, i.e., they will not face governmentally imposed deadlines on their investments in HDTV technology. If the proposed application/construction deadlines have the effect of forcing broadcasters to enter the HDTV market prematurely in advance of all these other industry sectors, the Commission will effectively be shifting enormous risks upon the broadcast industry, and essentially subsidizing the participation of other industry sectors in HDTV. There is nothing fair or equitable about such a result. Moreover, given the precarious state of broadcasting today, a state which has been created in substantial part by certain regulatory imbalances,^{12/} it hardly seems a propitious time to risk imposing another such handicap. Conversely, if the Commission's actions are counterproductive and inadvertently suppress the introduction of broadcast HDTV, the ramifications will also be felt by these industries.

Ensuring that the spectrum is used efficiently and intensively is indeed an important objective. It should be obvious, however, that the premature establishment of rigid "use or lose" and conversion deadlines would undermine, not

^{12/} See FCC Office of Plans and Policy, "Broadcast Television in a Multichannel Marketplace, 6 FCC Rcd 3996 (1991).

further, this objective. While it is generally supportive of a three-year application period, MSTV urges the Commission to accept the unanimous views of the commenting parties and defer the important decisions concerning construction and conversion deadlines to a time when the HDTV market has taken sufficient shape to permit rational decisionmaking.

III. OTHER ISSUES

A. LPTV Displacement Is Essential and Can Be Accomplished Without Undue Disruption.

Predictably, a bevy of LPTV interests expressed varying degrees of concern over the prospect that some of them will be displaced by HDTV. See, e.g., Comments of Telemundo Group, Inc.; Comments of Island Broadcasting; Comments of Community Broadcasters Association. The LPTV operators have launched a barrage of protective proposals ranging from a policy of using LPTV channels last, Comments of Island Broadcasting at 6-7, to requiring would-be HDTV operators to compensate displaced LPTV operators. Comments of Communicasting Corp. at 2.

Significantly, one of the largest and most aggressive of the LPTV operators, Telemundo Group, states that a policy of 1) displacing LPTV operators as a last alternative; 2) permitting displacees to relocate outside of a filing window; and, 3) to move to vacant NTSC and HDTV channels without being subject to competing applications, "should be adequate to assure near-term continued LPTV

operations". Comments of Telemundo Group at 10. Telemundo also notes that a great deal of the "shortage" of channels facing LPTV operators who truly wish to engage in local origination would be obviated by the strict enforcement of construction deadlines for current LPTV permittees. Id. Telemundo's comments make it clear that the more radical suggestions of other LPTV operators are not only indefensible as a matter of equity and policy, see Joint Broadcaster Comments at 33-34, but simply unnecessary.

In their early-filed reply comments, some of the LPTV interests take aim at the Joint Broadcaster proposal that translators be given a displacement priority over LPTV stations as "self-serving" and "highly inequitable." See, e.g., Reply Comments of Telemundo Group; Reply Comments of Community Broadcasters Association. MSTV submits that any "fairness" issue here does not favor the LPTV interests. For it is unquestionably the case that the vast bulk of local community and broadcast station investment in translators was made long before it was at all evident that HDTV would have to be located in the remaining portions of the UHF and VHF bands. It is equally undeniable that the vast majority of the investment in LPTV facilities has come after that fact was well known. The LPTV interests who have, in the face of such knowledge, gone ahead and made substantial investments in their facilities have taken a known, calculated risk.

Belatedly, they now ask the Commission to save them from their own risk taking at the expense of a highly valued service.^{13/}

B. Additional Auxiliary Spectrum May Be Critical.

MSTV wishes to underscore the message conveyed by the Joint Broadcaster Comments that additional auxiliary spectrum could well be essential to the rapid deployment of HDTV. Joint Broadcaster Comments at 35-36. See also Letter of MSTV, January 9, 1992, Gen. Docket No. 90-314 (urging Commission not to reallocate any portion of the 1990-2110 MHz band to PCS). When HDTV is implemented by means of a simulcast system, each licensee will be programming two channels and thus will require the linkage of two transmitters to each studio and to each national programming service. It may be possible to convert over time to single-channel auxiliary facilities, including mobile newsgathering facilities, which transmit HDTV signals which are "downconverted" to NTSC. But this conversion period could be

^{13/} The LPTV interests are also off-base in portraying translators as "repeaters" of channels already available over-the-air or by cable. Reply Comments of Telemundo at 2-3. Needless to say, translators are not often utilized unless they are necessary and the number providing "duplicative" over-the-air service is tiny. While the parent channel may be available over some of the translator's service area by cable, there is no requirement that such services be carried on their cable competitors and, in any event, 40% of the country's households do not subscribe to cable. Translators are, then, even in such locations as Manhattan, the only means by which millions of Americans receive their most-watched programming services, including the four broadcast networks.

a very substantial period of time and, in the interim, broadcast auxiliary needs could very nearly double.

Yet auxiliary spectrum in many major markets is already exhausted, despite the intensive use of creative and inventive spectrum efficiency enhancing techniques. This a critical and compelling need. As MSTV notes elsewhere, the calculus for broadcaster investment in HDTV is filled with uncertainties and risks. It would be highly ironic if over-the-air rollout of HDTV were impeded in any significant way by the lack of economic auxiliary connections.

C. The Time Has Come to Remove Land Mobile from the UHF Television Band, and to Terminate Pending Proposals to Increase Land Mobile Use of the UHF Television Band.

As noted in the Joint Broadcasters' comments, it has been nearly seven years since the Commission first proposed to allocate UHF spectrum in the top eight markets to land mobile radio users, Notice of Proposed Rule Making, Gen. Docket No. 85-172, 50 F.R. 25587 (June 20, 1985), and four years since the proceeding was put on hold pending the assessment of HDTV spectrum needs. In the Matter of Further Sharing of the UHF Television Band by Private Land Mobile Radio Services, Gen. Docket No. 85-172, 2 FCC Rcd 6441 (1987). MSTV believes that it is time for the Commission to terminate this proceeding.

For the past four years, both the Commission and the ATV Advisory Committee have conducted extensive spectrum studies to determine the amount of spectrum that will be

necessary to accommodate all existing stations with an HDTV channel. These studies have conclusively demonstrated that, based on any of the various assumptions that have been put forward, there is a direct relationship between the channels proposed for land mobile and the ability to provide HDTV channels to all existing broadcast stations. For example, the Commission has proposed in Gen. Docket 85-172 to reallocate five UHF television channels in New York for land mobile use. But the Commission and Advisory Committee studies indicate that each of these channels will be needed to ensure that all existing broadcasters in the New York market are able to upgrade to HDTV. Given the shortage of spectrum in this congested market, if five channels were reallocated to land mobile, five existing broadcast stations in New York will be deprived of an HDTV channel. This one-to-one tradeoff applies in almost all the markets in which UHF channel reallocations are proposed in Gen. Docket 85-172.^{14/}

Surely the time has come to acknowledge that there will not be enough spectrum available in major markets for land mobile use after the allocation of HDTV channels has been finalized. Keeping the land mobile/UHF sharing docket open serves no useful purpose, except perhaps to foster some degree

^{14/} Aside from the five channels in New York, the Commission in Gen. Docket 85-172 proposed to reallocate to land mobile six UHF channels in Los Angeles, four channels in Chicago, three channels in San Francisco, two channels in Philadelphia, two channels in Washington, three channels in Houston, and three channels in Dallas. 50 F.R. at 25593.

of uncertainty as to the Commission's commitment to HDTV. MSTV strongly urges the Commission to terminate that proceeding.

D. The Time Has Come to Reclaim Unused
or Lightly-Loaded Land Mobile Channels
in the UHF-TV Band.

Even assuming no reallocation of UHF television channels to land mobile as contemplated in Gen. Docket 85-182, the Commission and Advisory Committee studies indicate that there still may be a shortage of spectrum for the implementation of HDTV. Laboratory testing may establish the need for greater spacing and separation requirements to protect existing NTSC stations from adjacent or some other taboo channels, in which case there may not be sufficient spectrum to provide all existing broadcast stations with HDTV channels in such markets as New York, Philadelphia, Washington and Chicago. See Notice at n. 50. To ensure that sufficient HDTV spectrum is available in these markets, MSTV believes the Commission should initiate a proceeding to reallocate some or all of the unused or slightly used channels from land mobile to broadcasting. Specifically, MSTV recommends the reallocation to television broadcasting of Channel 14 in Pittsburgh and Cleveland, Channel 15 in Detroit and Chicago, Channel 17 in Washington, Channel 18 in Pittsburgh and Channel 20 in Philadelphia.

It has been more than twenty years since the original allocation of that spectrum to land mobile in these

markets, First Report and Order, Gen. Docket No. 18261, 23 FCC2d 325 (1970), more than enough time for these channels to be assigned and fully loaded.^{15/} Based on the information recently obtained from the FCC Frequency Master File, this seems to be generally the case. For the channels listed above, however, the situation is somewhat different. For instance, Channel 18 in Pittsburgh does not show a single land mobile entry. Channels 14 and 15 in Cleveland and Detroit, respectively, have also not been assigned to a single licensee because of coordination difficulties with Canada. Channel 15 in Chicago shows a total of 38 licensees assigned on twenty different land mobile channels, less than one-sixth of the spectrum available for assignment.^{16/} Channel 17 in Washington shows a total of 36 channels assigned with an average mobile occupancy of less than 5 mobiles, i.e., less than 10 percent of the recommended loading on these channels.

^{15/} See In re Spectrum Efficiency in PLMR Bands in Use Prior to 1968, PR Docket No. 91-170, 6 FCC Rcd 4126, Appendix at 4142 (1991) (noting that twenty years was a sufficient time for all available assignments to be made to land mobile in the 470-512 MHz band); Letter from Ralph A. Haller, Chief, Private Radio Bureau, to Margita White, President, MSTV (January 16, 1991) ("Due to the extensive use of these frequencies [in the UHF band] by the land mobile community in the major metropolitan markets and the exclusive channel use provisions which exist, the pace of new licenses for this band has slowed considerably. It is not as dynamic as in previous years. We, therefore, do not foresee many additional grants in this band.")

^{16/} Moreover, this statistic does not even take actual usage into account. Actual usage would doubtless constitute only a very small fraction of the total channel capacity.